

CLAIMS:

1. In an OLED device, the improvement comprising:
 - (a) a reflective and conductive bilayer anode including a metal or metal alloy or both;
 - 5 (b) a hole-injecting structure over the reflective and conductive bilayer anode;
 - (c) at least one organic layer formed over the hole-injecting structure; and
 - (d) the reflective and conductive bilayer anode being
 - 10 configured to improve the stability of drive voltage.
2. The OLED device of claim 1 wherein the at least one organic layer includes an emissive layer and an electron transport layer.
3. The OLED device of claim 1 further including a reflective and conductive cathode and wherein the reflectance and the transmittance of the
- 15 reflective and conductive bilayer anode, and the thickness of the at least one organic layer and the cathode are selected to change the internal reflection of light to thereby improve emission.
4. The OLED device of claim 3 further including an electron transport layer and the reflective and conductive cathode including a metal or
- 20 metal alloy or both provided over the electron transport layer.
5. The OLED device of claim 1 wherein the reflective and conductive bilayer anode includes a base layer of a highly reflective metal and a thin surface layer including an alloy of the base layer or an alloy of a different highly reflective metal in contact with the hole-injecting structure..
- 25 6. The OLED device of claim 5 wherein the highly reflective metal is Ag, Au, Cu Al, Mg, Zn, Rh, Ru, or Ir or combinations thereof.
7. The OLED device of claim 5 wherein the metals alloyed with the highly reflective metals in the thin surface layer are Ag, Au, Cu Al, Mg, Zn, Rh, Ru, Ir, Pd, Ni, Cr, Pt, Co, Te, or Mo or combinations thereof.
- 30 8. The OLED device of claim 1 wherein the hole-injecting structure includes one or more hole-injection layers.

9. The OLED device of claim 1 wherein the hole injection structure includes CF_x, ITO, IZO, Pr₂O₃, TeO₂, CuPc, SiO₂, VO_x, MoO_x, or mixtures thereof.

10. The OLED device of claim 3 wherein the wherein the reflective and conductive cathode includes metal or metal alloys having a work function selected to be about 4.0 eV or less.

11. The OLED device of claim 10 wherein the metal or metal alloys include alloys of Ag or Al with Mg, alkali metals, alkali earth metals, or Mn.

12. The OLED device of claim 1 wherein the device emits light through the reflective and conductive bilayer anode.

13. The OLED device of claim 3 further including a transmissive cathode and wherein the device emits light through the transmissive cathode.

14. The OLED device of claim 1 wherein the reflective and conducting bilayer anode is semitransparent.

15. The OLED device of claim 3 wherein the reflective and conductive cathode is opaque.

16. The OLED device of claim 14 further includes a transparent substrate having a transmission enhancement layer between the transparent substrate and the reflective conductive and semitransparent bilayer anode.

17. The OLED device of claim 13 further includes a transmission enhancement layer over the transmissive cathode.

18. The OLED device of claim 16 wherein the transmission enhancement layer includes ITO, MgO, MoO_x, SnO₂, TiO₂, Al₂O₃, SiO₂, ZnO, ZrO₂, Alq, NPB, SiN, AlN, TiN, SiC, Al₄C₃, or mixtures thereof.

19. The OLED device of claim 17 wherein the transmission enhancement layer includes ITO, MgO, MoO_x, SnO₂, TiO₂, Al₂O₃, SiO₂, ZnO, ZrO₂, Alq, NPB, SiN, AlN, TiN, SiC, Al₄C₃, or mixtures thereof.

20. The OLEDdevice claim 16 wherein the thickness of the transmission enhancement layer is a range from 20 nm to 150 nm.

21. The OLEDdevice claim 17 wherein the thickness of the transmission enhancement layer is a range from 20 nm to 150 nm.